Experiment 3, Study 1: Soft Circuits

What is a circuit?

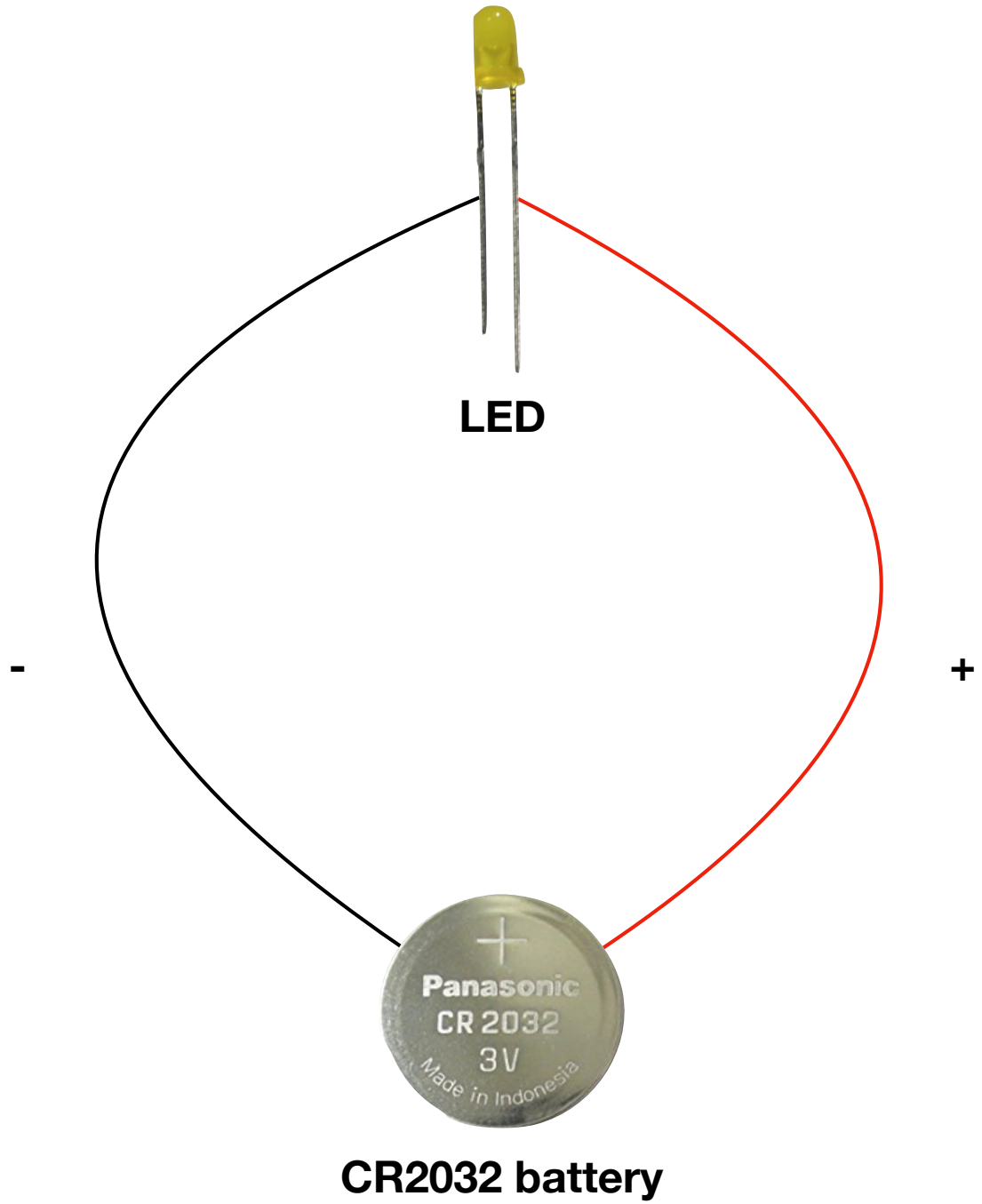
A circuit includes…

- A power supply
- A load
- A conductor

CR2032 battery

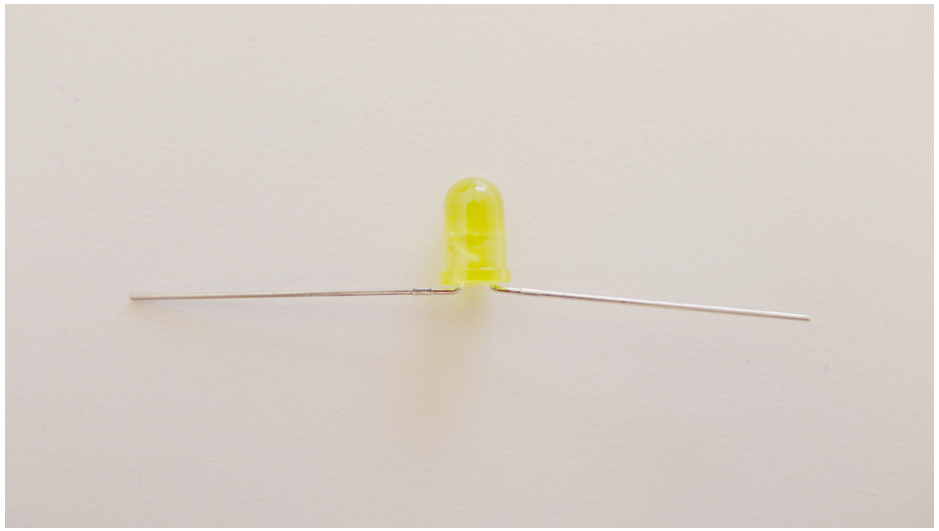
LED

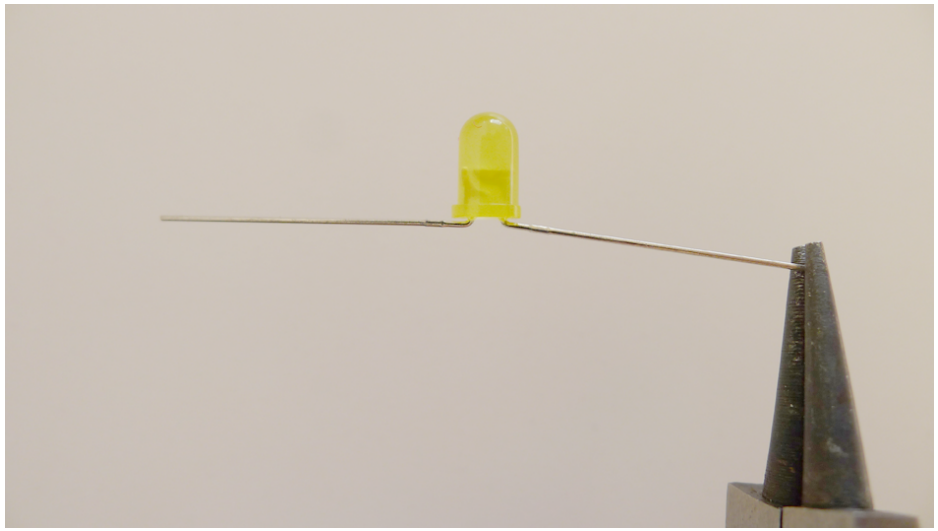
conductive thread

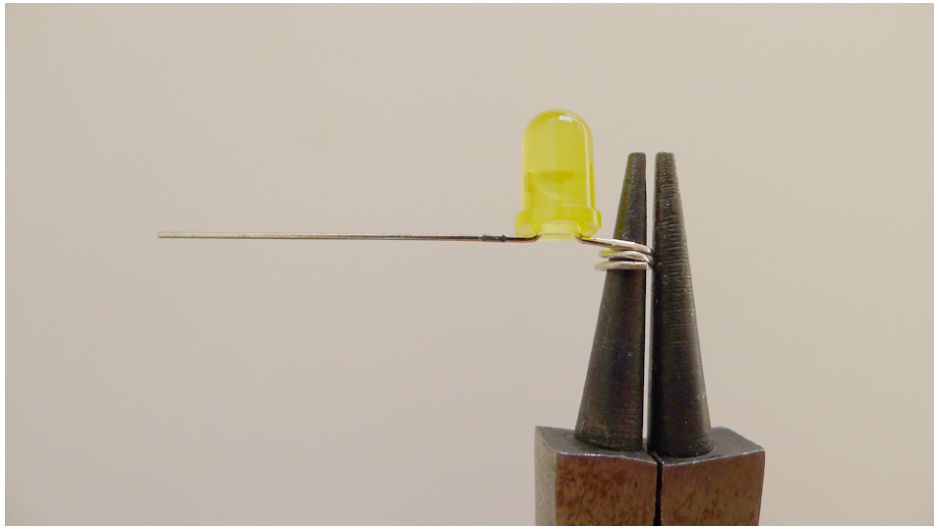


Task: Make this circuit using alligator clips.

making components sewable

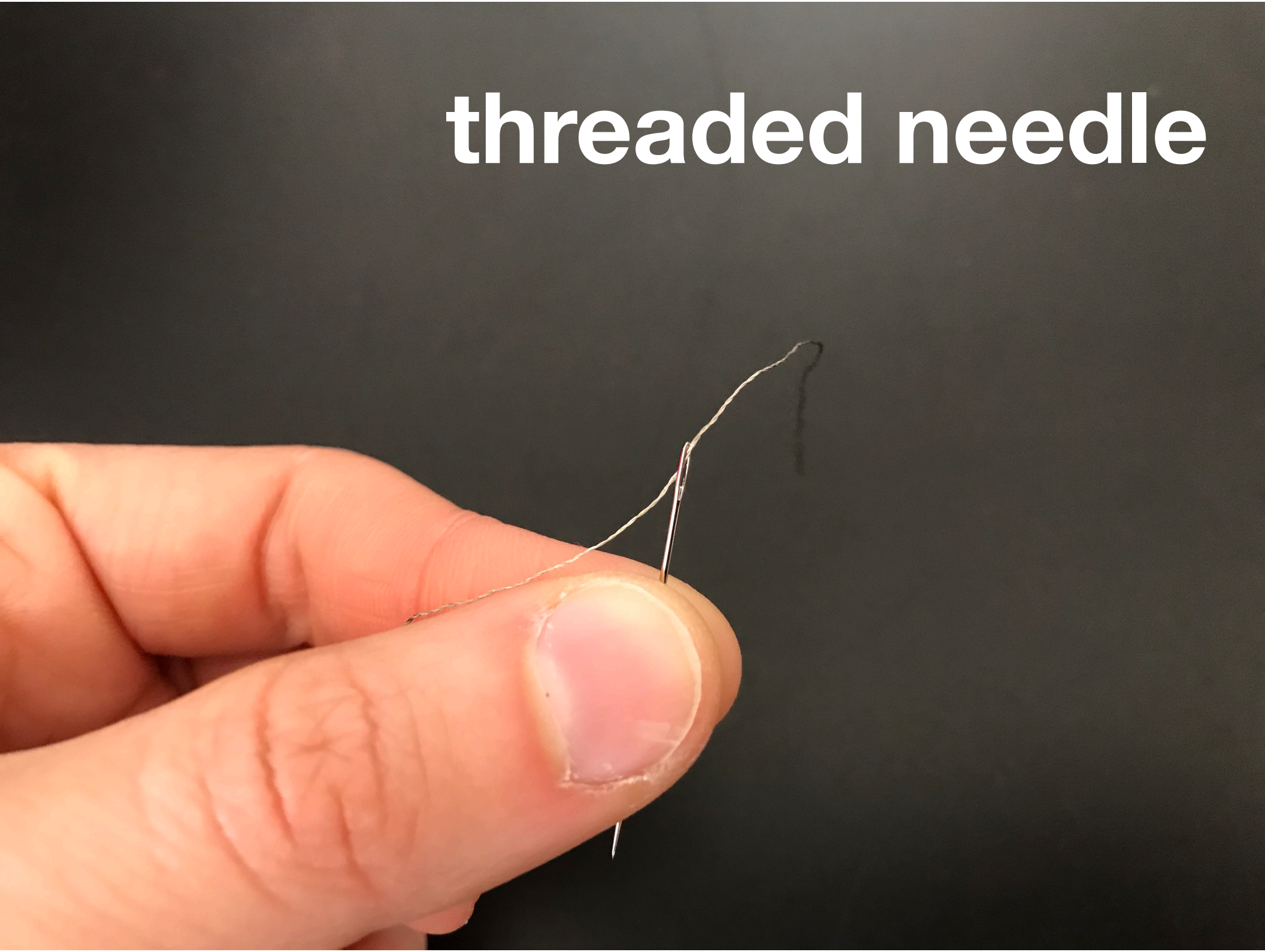


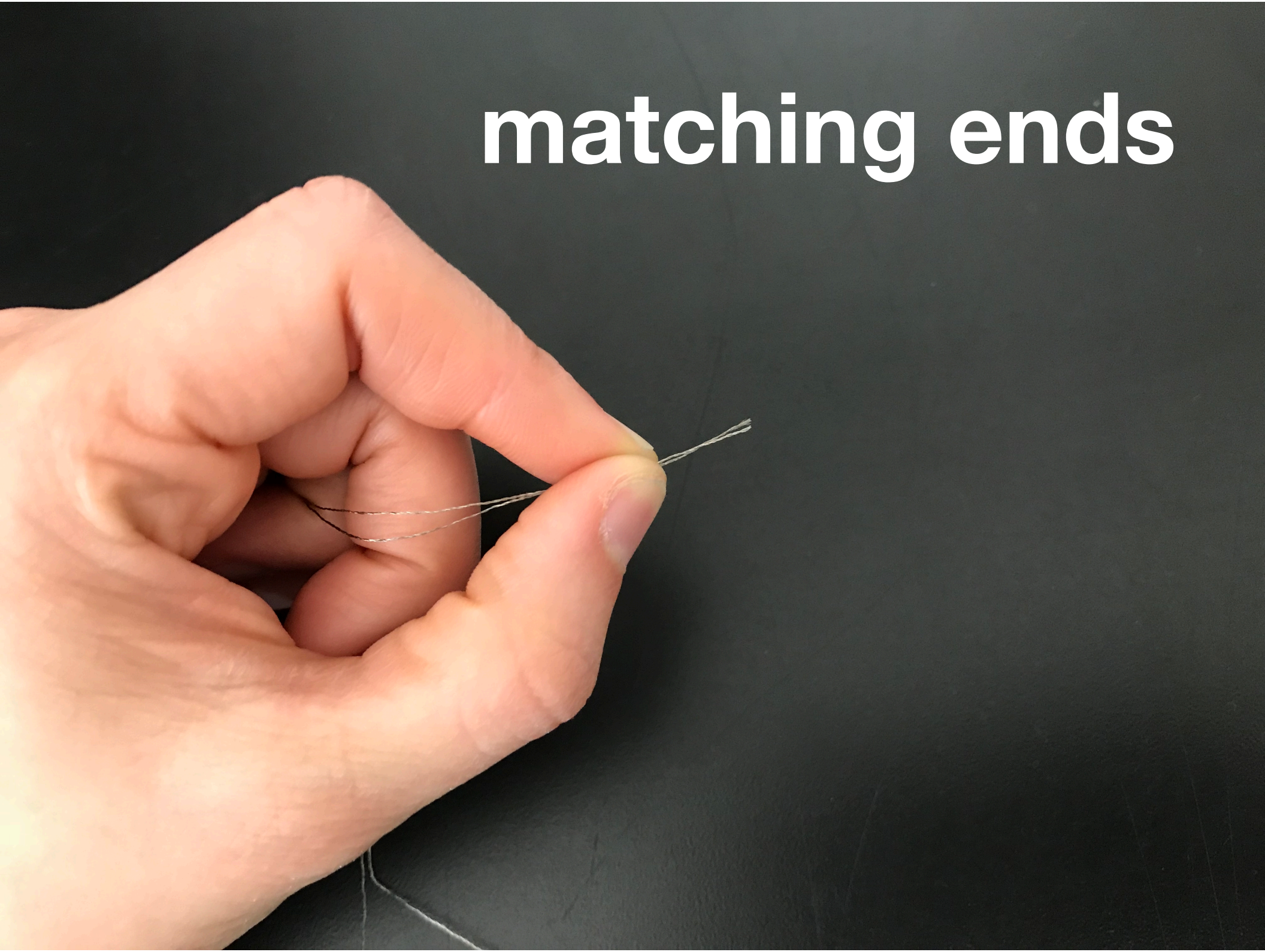


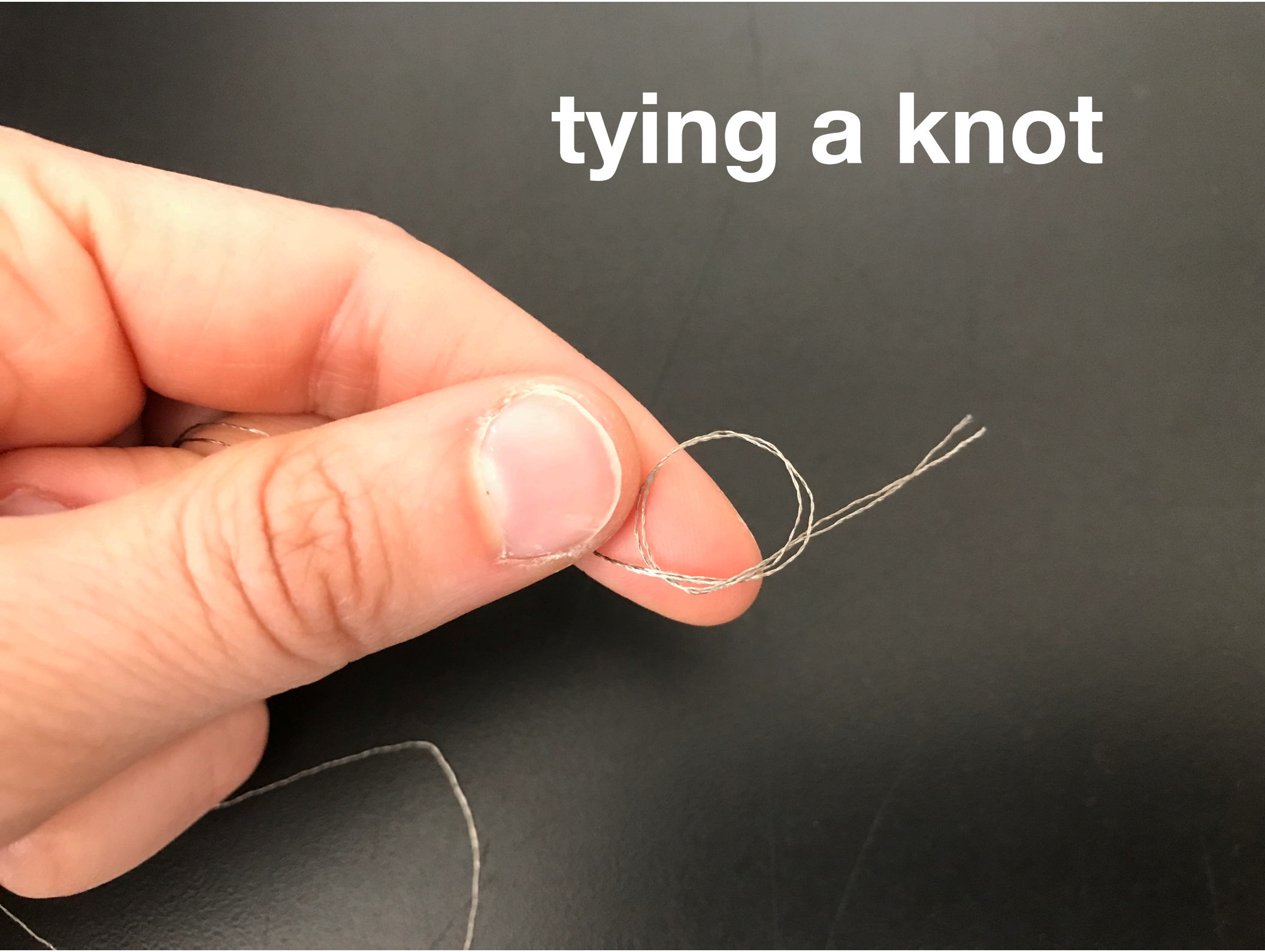


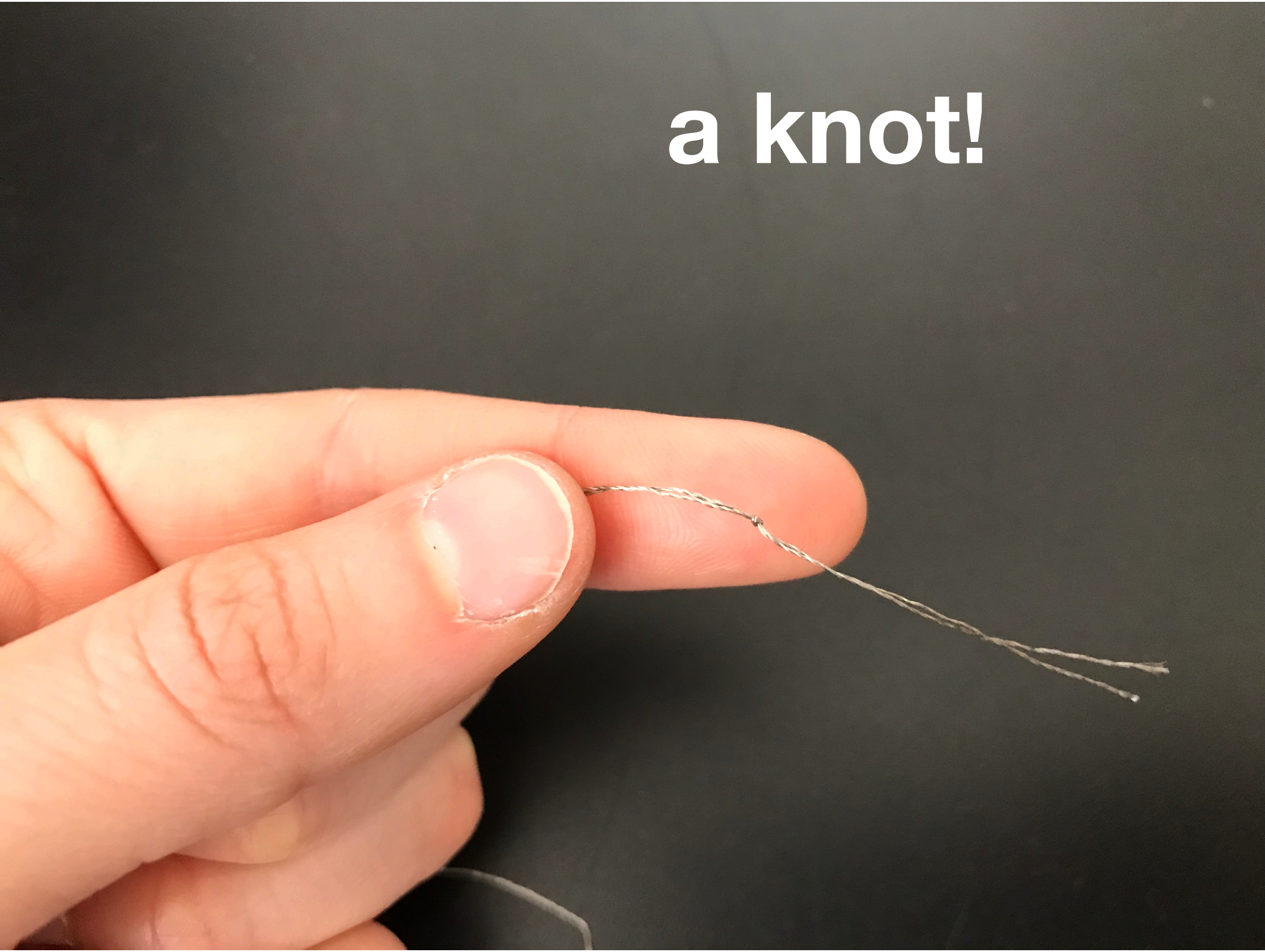
clipping the battery

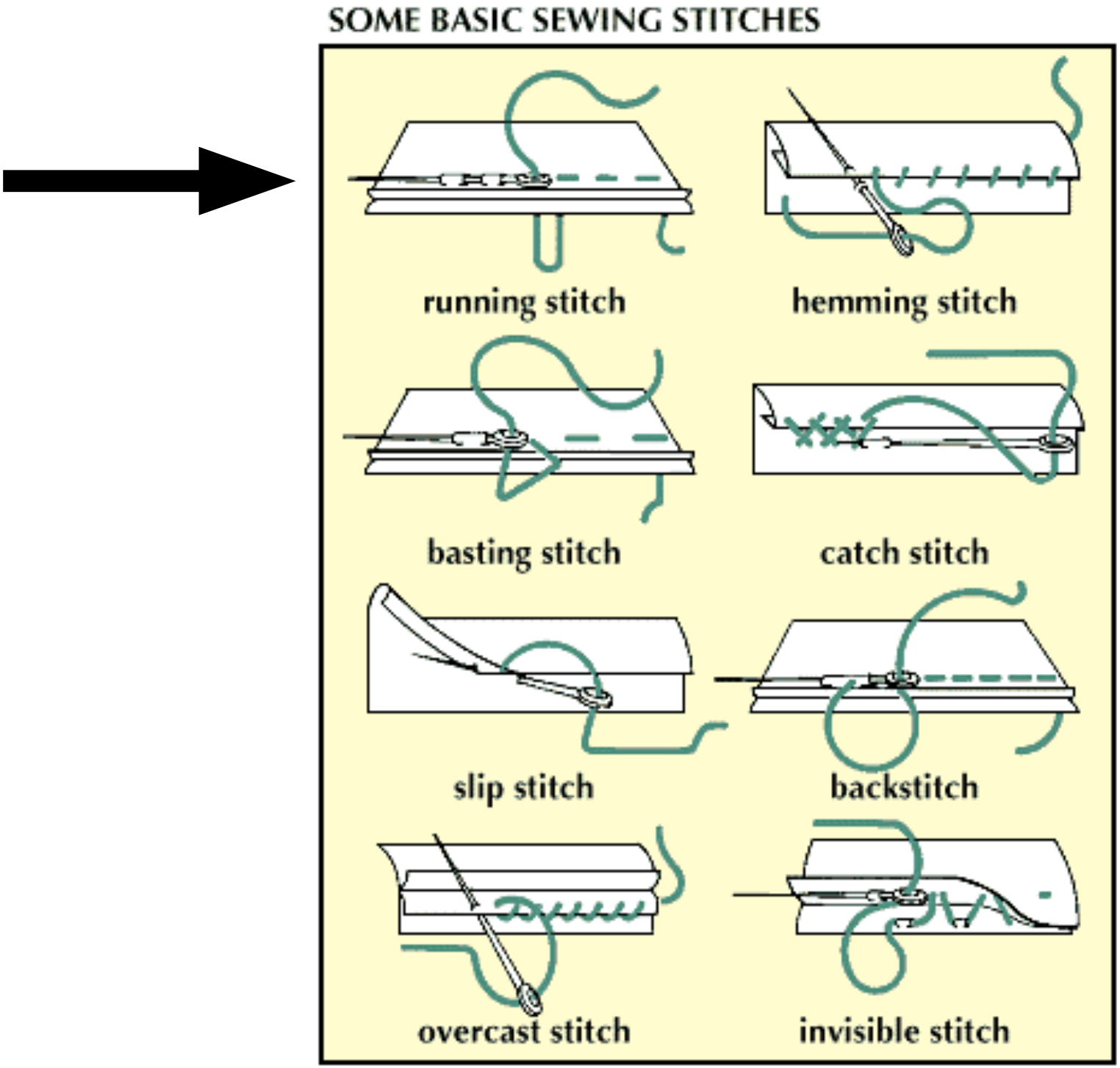
Image source:
http://www.kobakant.at/DIY/?p=5222

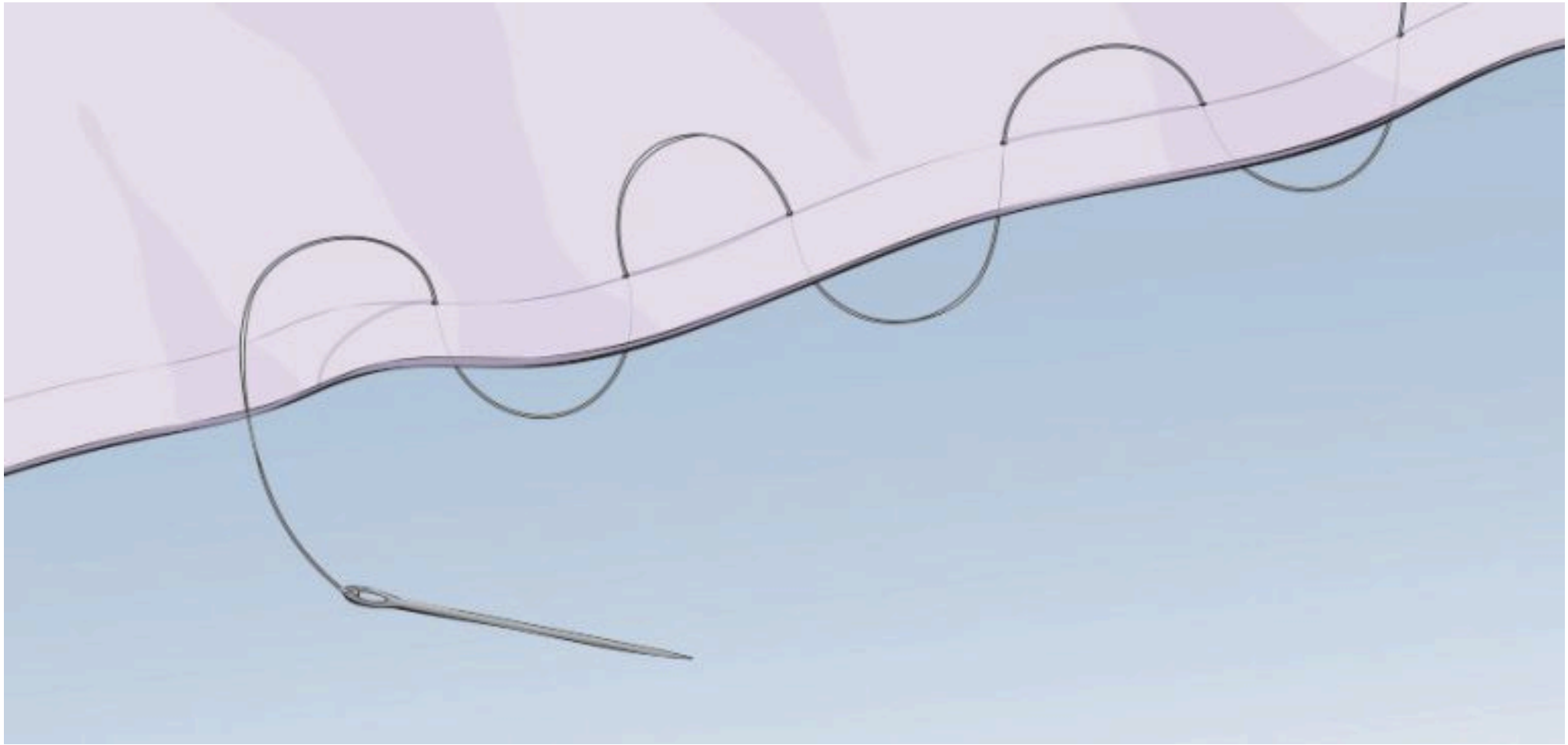

threaded needle


matching ends


tying a knot

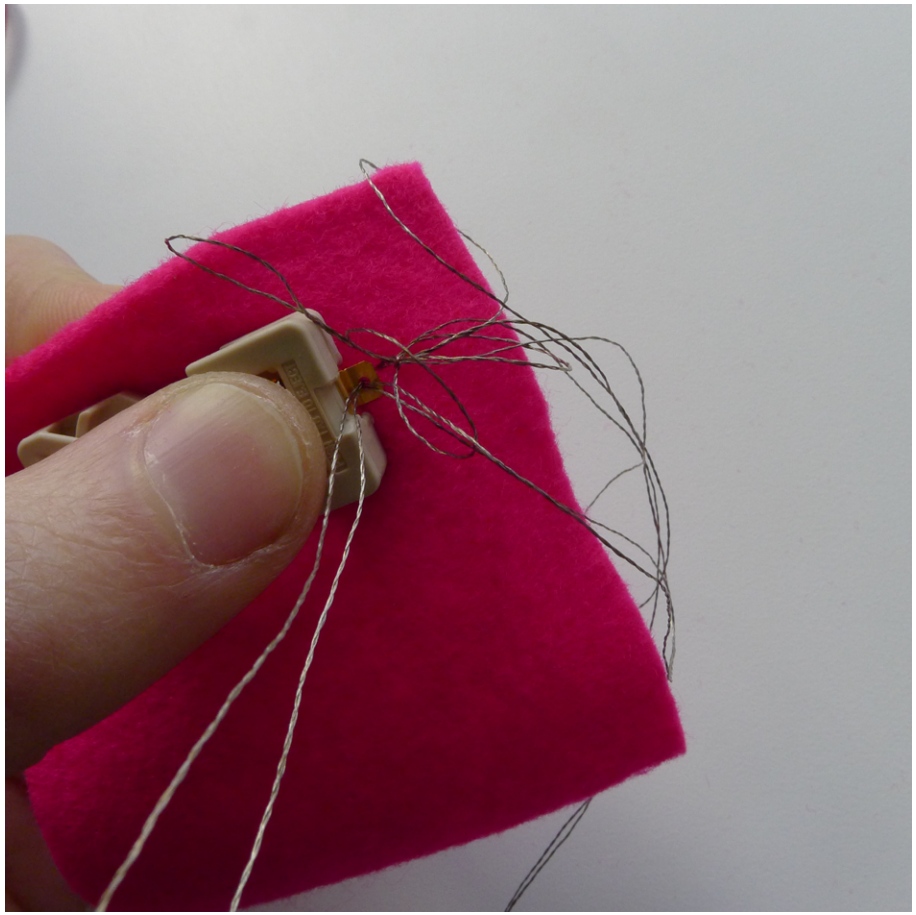

a knot!


SOME BASIC SEWING STITCHES
running stitch
hemming stitch
basting stitch
catch stitch
slip stitch
backstitch
overcast stitch
invisible stitch



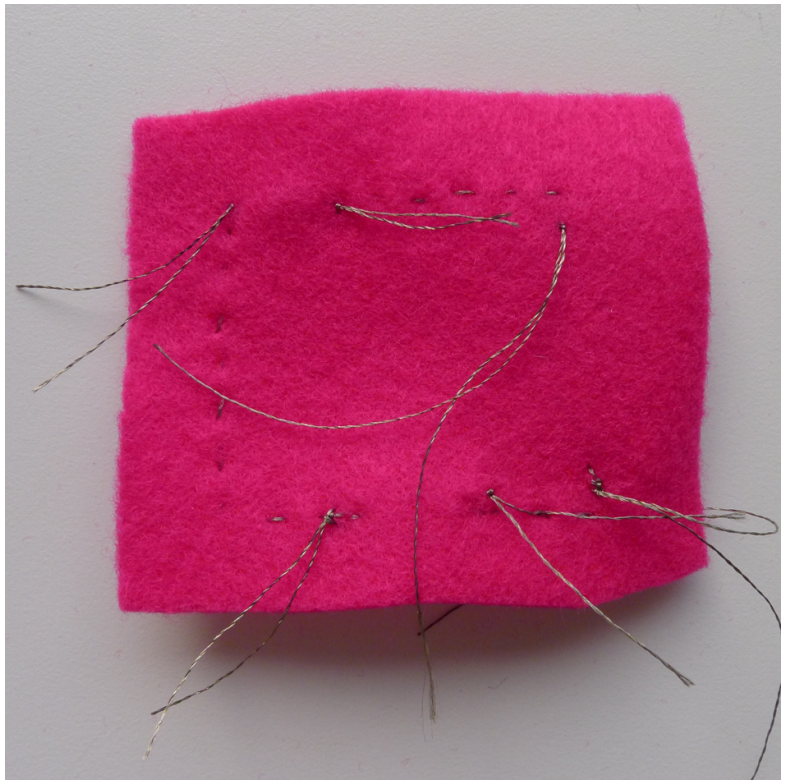
conductive thread best practices

- be careful of tangling



conductive thread best practices

- snip long ends so they don’t cause short circuits



conductive thread best practices

- tie knots well
- secure knots with glue or clear nail polish so they don’t unravel

mark location of stitching and battery

the corner will fold over to connect to the other side of the battery

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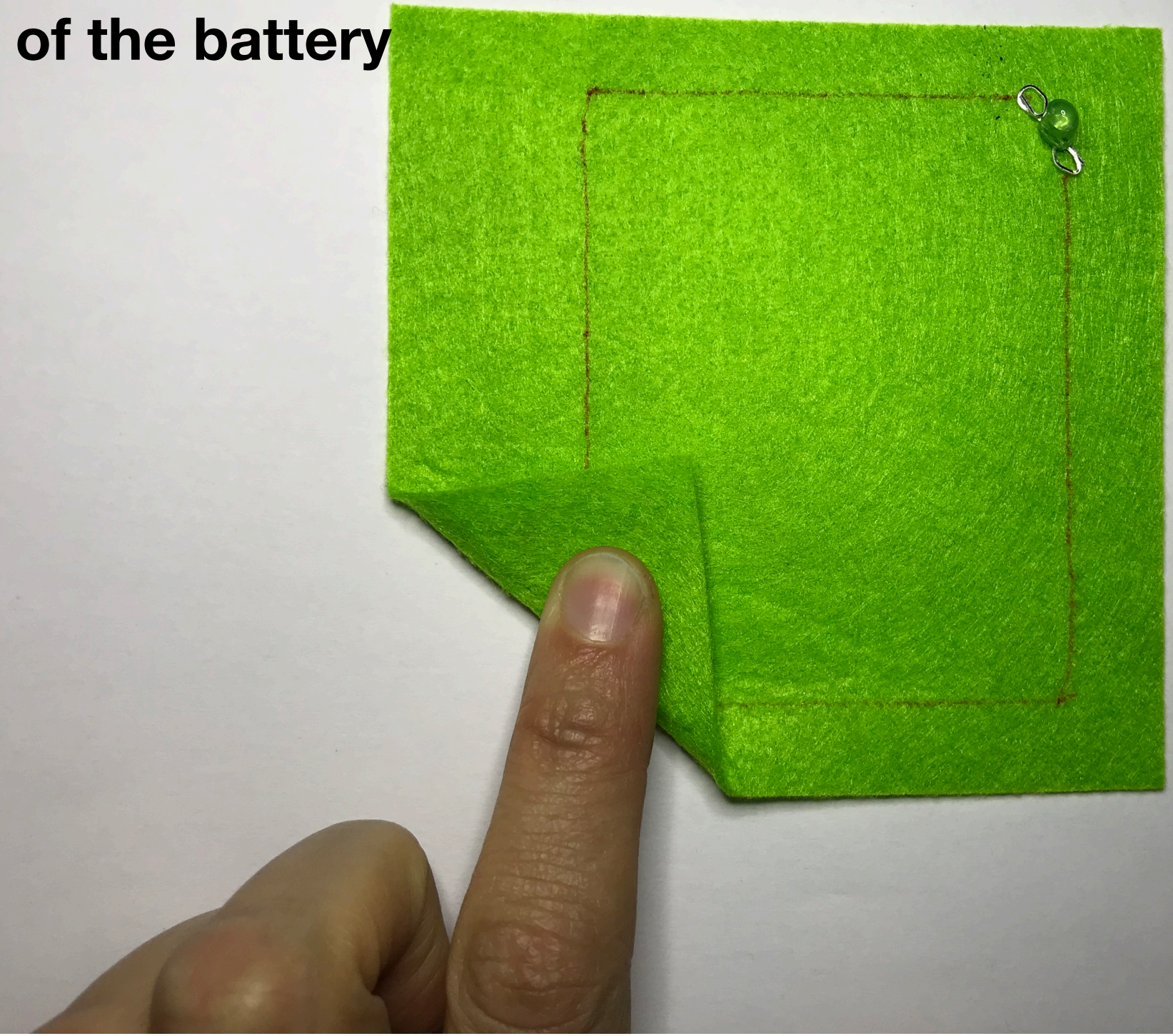
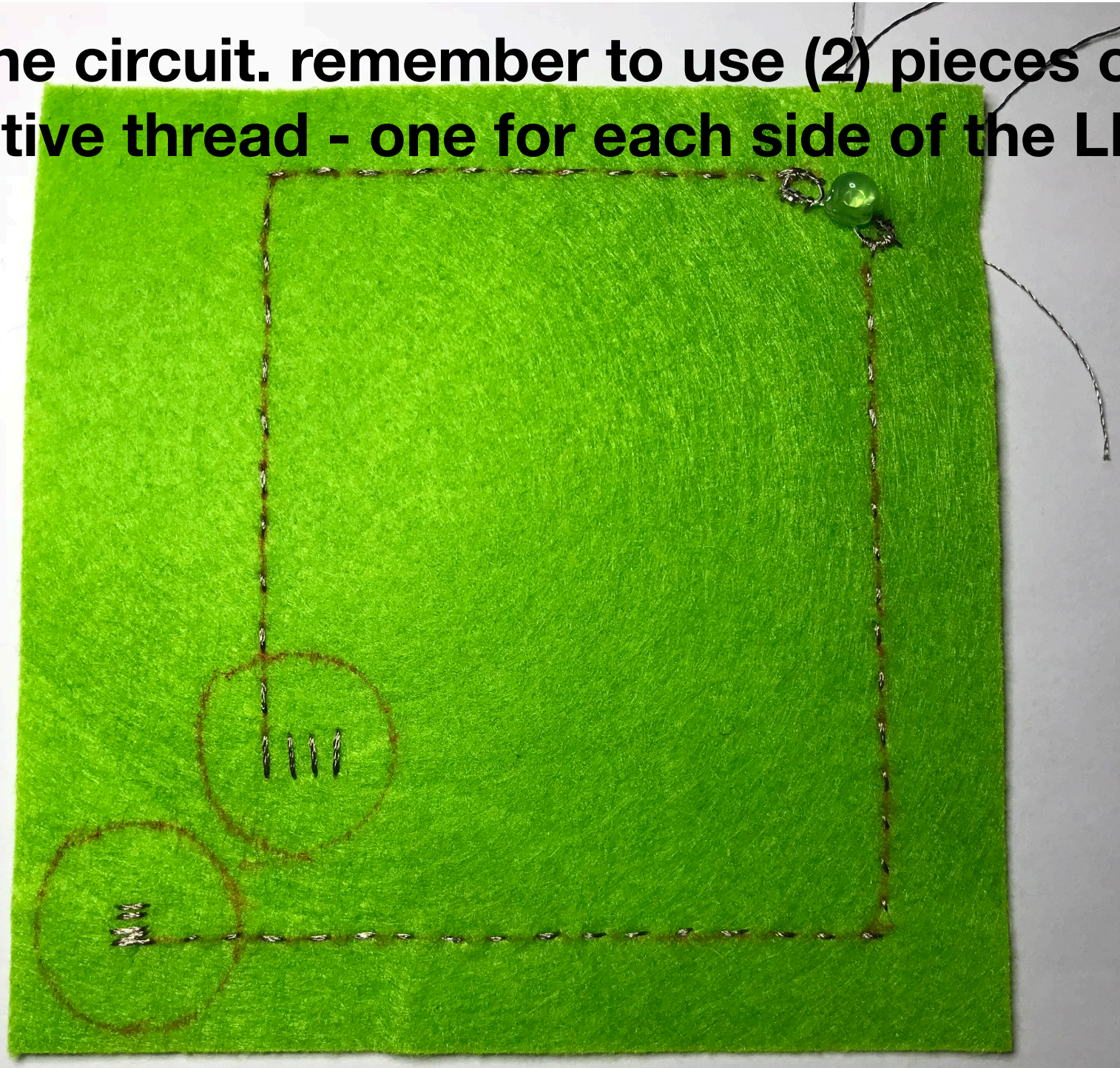
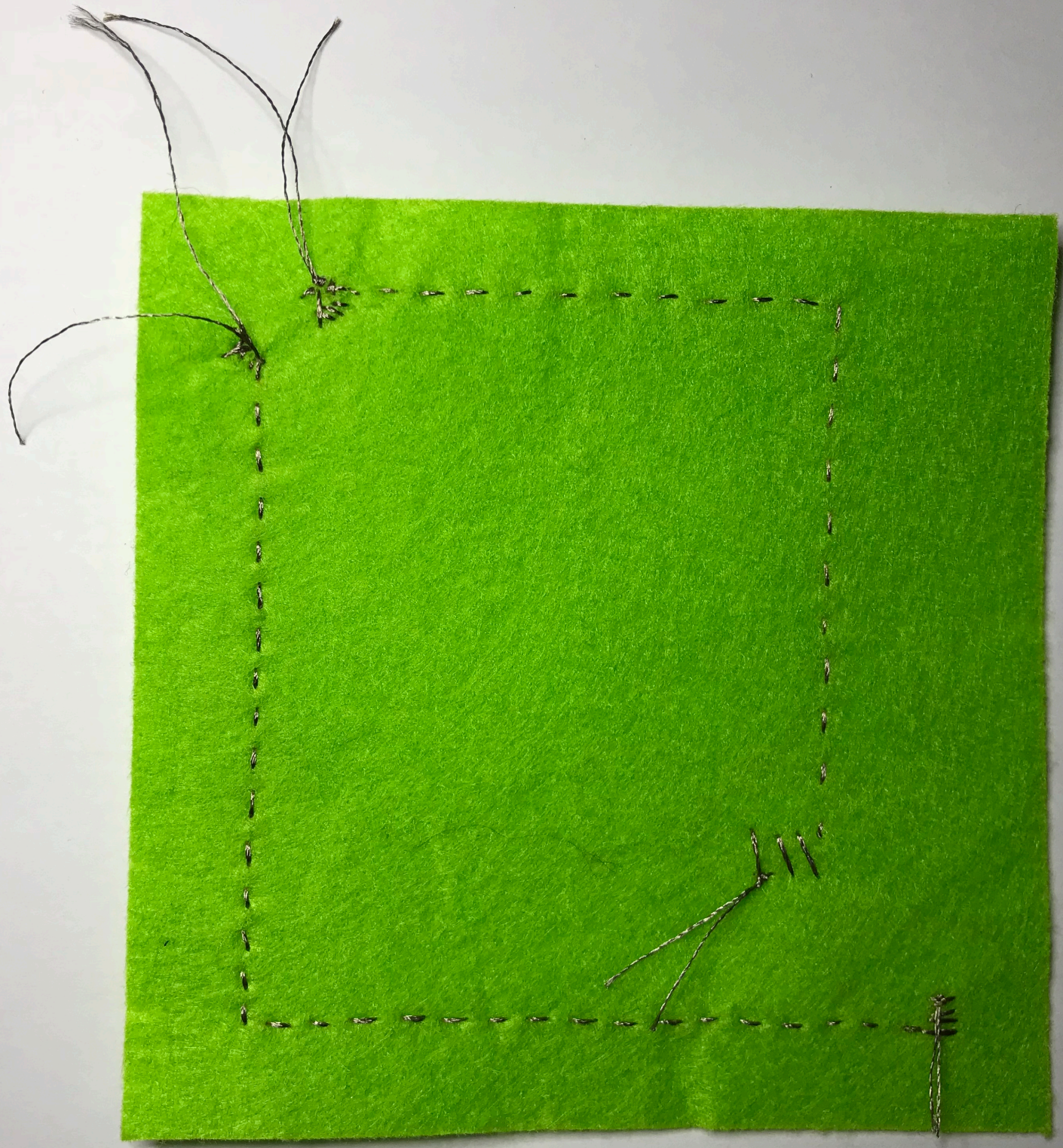


stitch the circuit. remember to use (2) pieces of conductive thread - one for each side of the LED

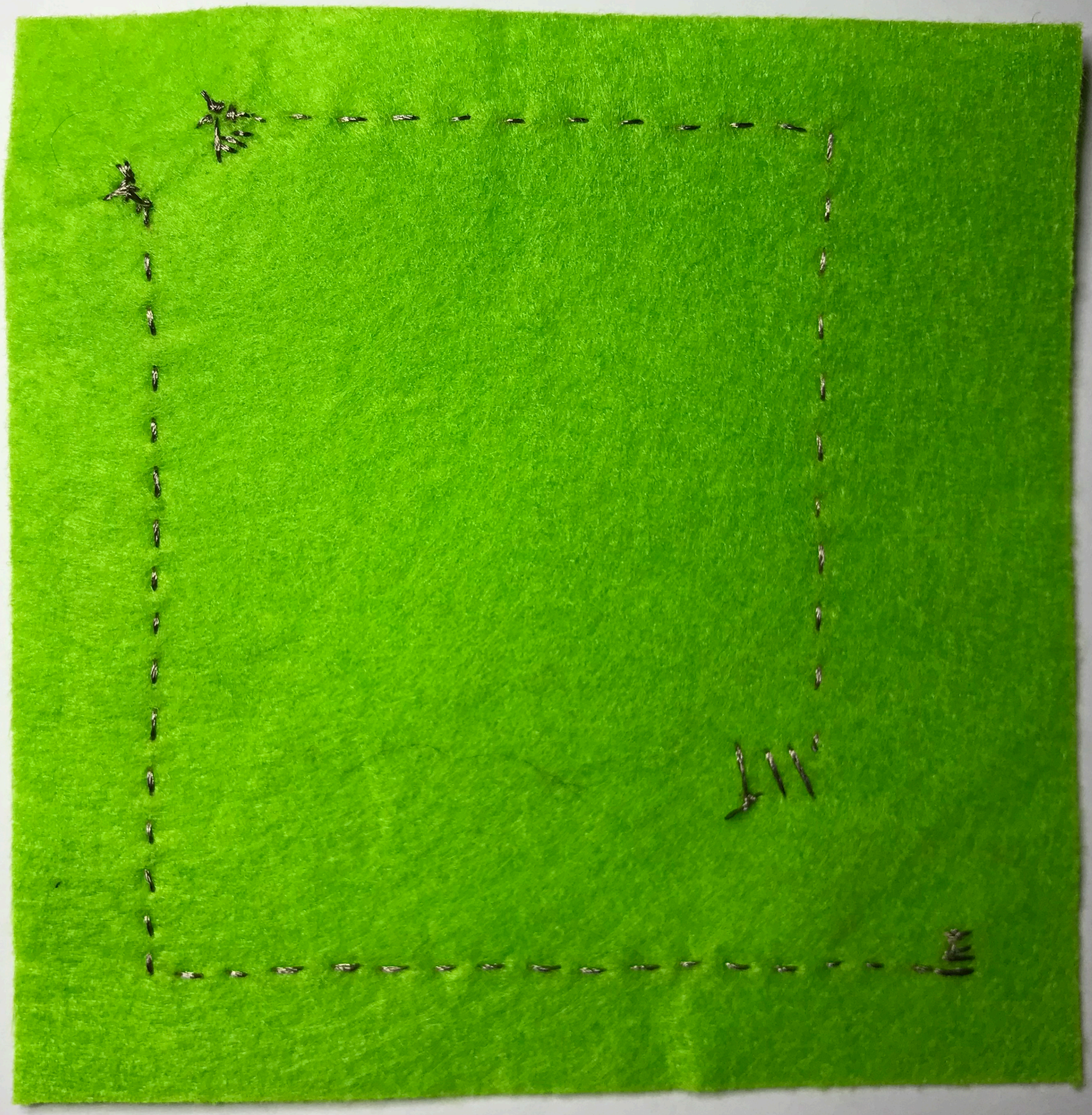


add extra stitches for the battery contact points

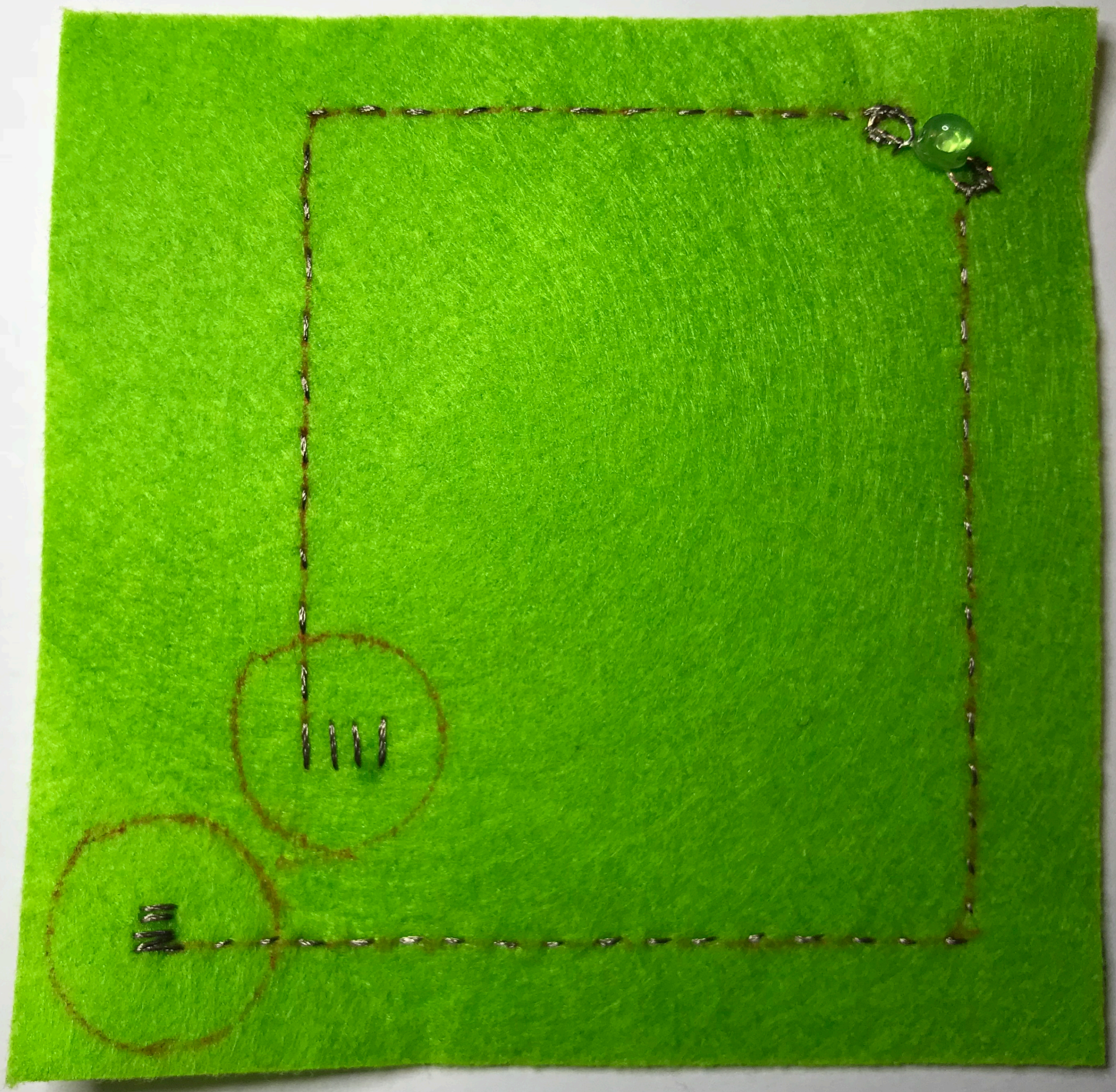
trim the ends so they don’t cause a short circuit

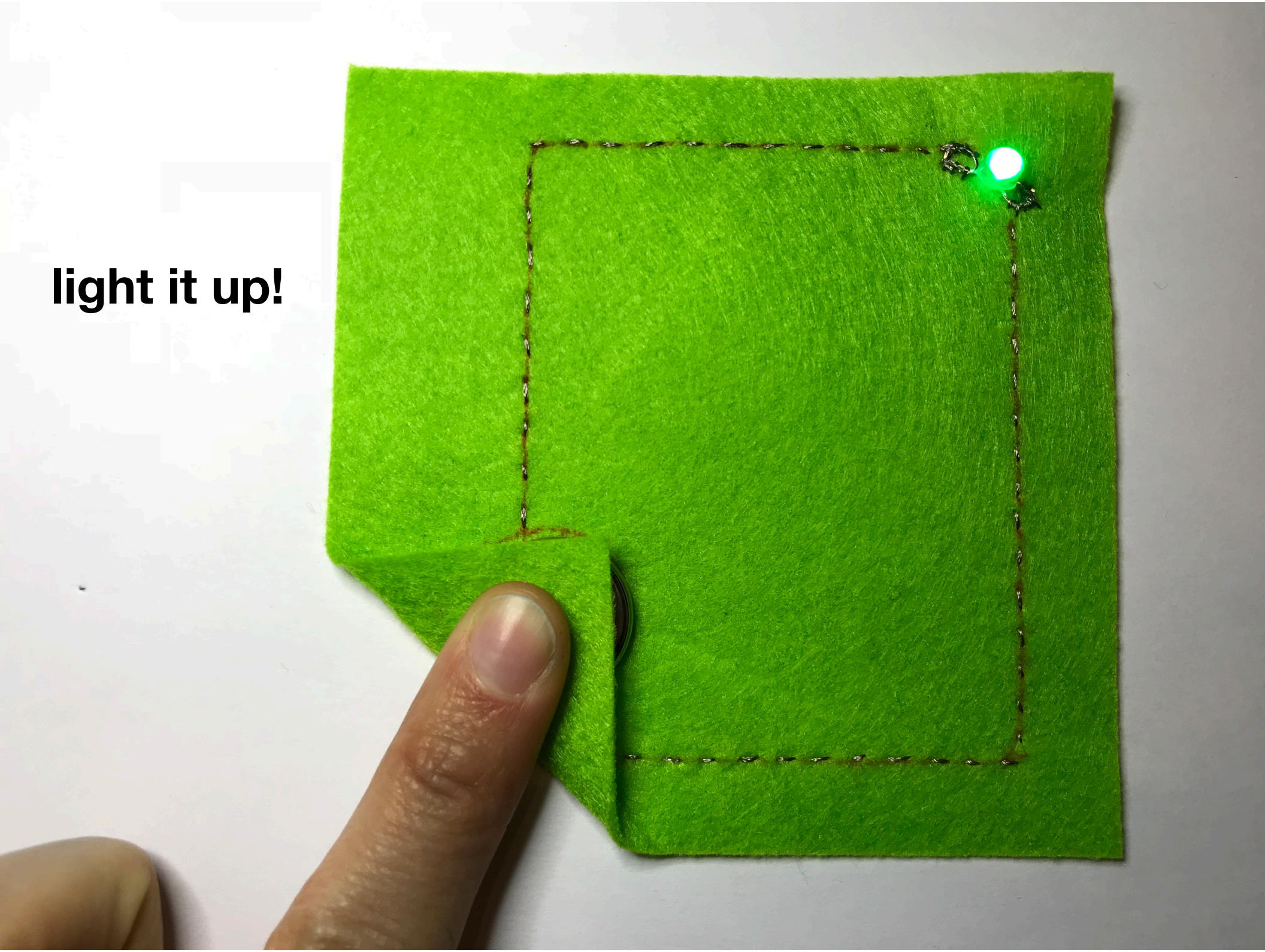


secure trimmed ends with glue so they don’t unravel



all done!



add battery

light it up!